

MIRONYUK, S.K. [Myroniuk, S.K.]; LEVCHENKO, N.P.

Reducing the traction resistance of a plow. Mekh. sil'.  
hosp. 14 no.9:31 S '63. (MIRA 17:1)

1. L'vovskiy sel'skokhozyaystvennyy institut.

MIRONYUK, V.A., prepodavatel' (Khar'kov)

Training railroad personnel. Put' i put. shos. n. l. 1959  
(MIRA 1959)  
(Kharkov--Railroads)

(A) L 30704-66 ENT(m)/EMP(j)/T RPL RM/HN

ACC NR: AP5028898

SOURCE CODE: UR/0138/65/000/011/0003/0005

AUTHOR: Livshits, I. A.; Reykh, V. N.; Korobova, L. M.; Mironyuk, V. P.; Nerush, K. U.; Stepanova, V. I.

ORG: All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev  
(Vsesoyuznyy nauchno-issledovatel'sklyy institut sinteticheskogo kauchuka)

TITLE: Ethylene-propylene copolymers containing unsaturated bonds

SOURCE: Kauchuk i rezina, no. 11, 1965, 3-5

TOPIC TAGS: ethylene, propylene, copolymer, vulcanization

ABSTRACT: The article describes the physicomechanical properties of the SKEPT-1 copolymers, which are ternary copolymers of ethylene, propylene, and an unconjugated diene, and have a small quantity of double bonds. The influence of vulcanization time and degree of unsaturation of copolymers, fillers, and Defo toughness on the physicomechanical properties of SKEPT-1 vulcanizates was studied. The properties depend on the composition of the copolymers: as the content of propylene linkages rises from 35 to 41 mole %, the tensile strength and elasticity of the vulcanizates decrease. Because of the valuable physicomechanical properties of their black-extended vulcanizates, the SKEPT-1 copolymers are of great interest for practical applications in the rubber, tire, and other industries. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 07, 11 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 004  
Card 1/1 LS      UDC: 678.762.2-139.004.12

LIVSHITS, I.A.; REYKH, V.N.; KOROBKOVA, L.M.; MIRONYUK, V.P.; NEFEDOV, K.V.;  
STEPANOV, V.I.

Copolymers of ethylene and propylene containing unsaturated  
bonds. Kauch. i rez. 24 no.11:3-5 '65. (RA-14;1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo  
kauchuka imeni S.V. Lebedeva.

MIRONYUK, Ye.P.

Discovery of missourites in the Aldan shield. Zap. Vses. min.  
ob-vn 89 no.4:424-432 '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy  
institut (VSEGEI), Leningrad.  
(Aldan Plateau--Missourite).

MIROPOI'SKAYA, G. I.

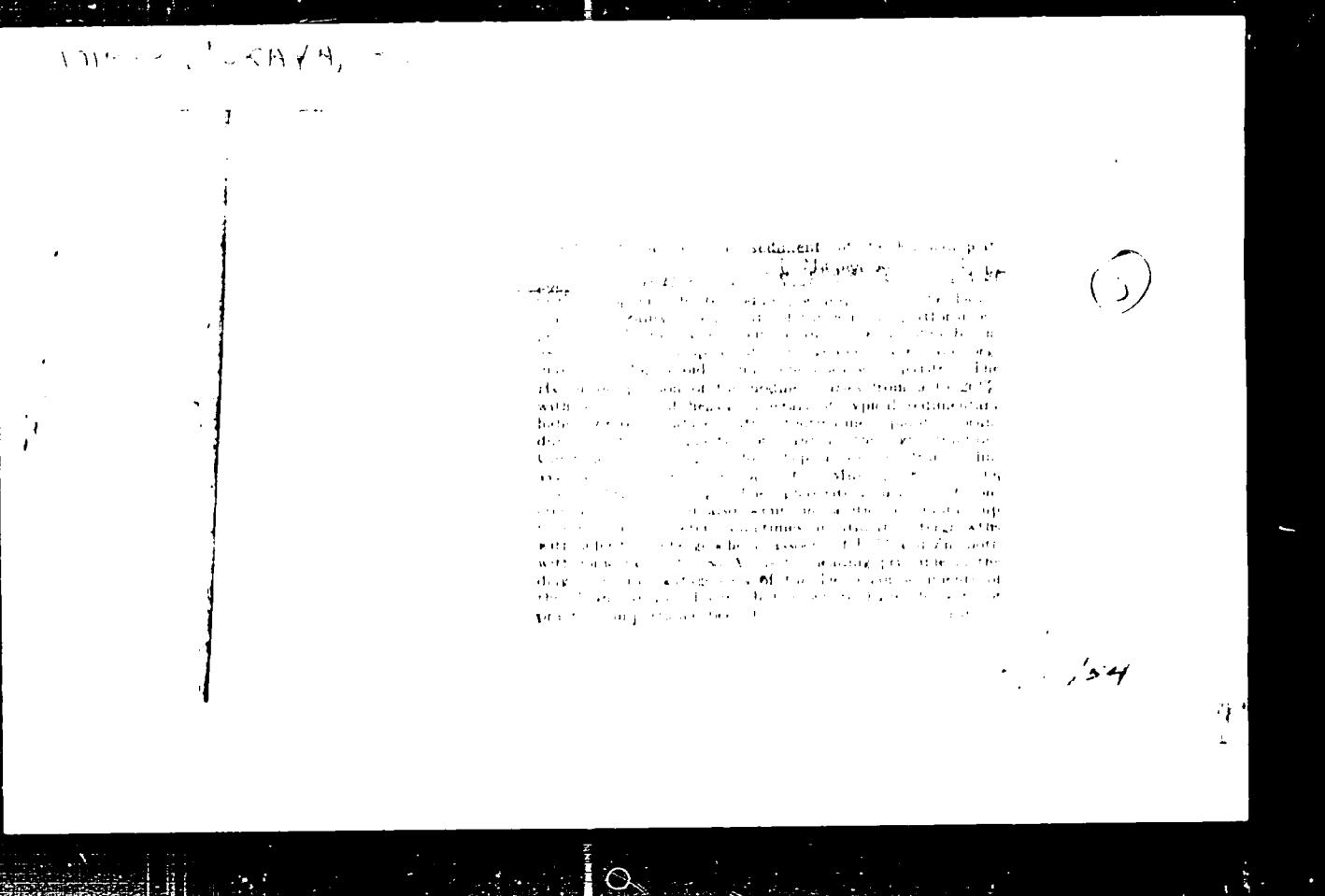
Mtr., Kazan State Univ. ; V. I. Len'in, Gor'kiy Geological Admin., -1947-  
Mtr., Geol. Inst., Kazaw Aff'l., Acad. Scie., -1947-. "Lithologic Characteristics  
of the Ore Bearing Strata in the Iron Ore Deposits from Motmos to Doschato on  
the Oka River in Gor'kiy Oblast," Dok. AN, 58, No.6, 1947; "Iron Ore Deposits  
in the Motmos-Doschatoye Valley of the Vysinskij Region, Gor'kiy Oblast,"  
ibid., 59, No. 1, 1948; "The Iron Ore Concentrations at Motmos-Doschatoye  
on the Oka River in Gor'kiy Oblast," ibid., No. 2, 1948; "The Lithology of the  
Ore-bearing Stratum in the Chmutninsk Iron Ore Deposits," ibid., 1, No. 1, 1949.

Iron-ore concentrations near Motmoe Doschatoe on River Oka, Gor'kiy District 1. M. Miropol'skii and G. I. Miropol'skaya. Doklady Akad. Nauk SSSR 290: 303-311 (1987). The Fe ores belong chiefly to the Lower Jurassic and consist of spheroidalite, accompanied by subordinate leptochlorite and pyrite. Only locally Fe oxide is present, in consequence of oxidation reactions on siderite and pyrite. The ores contain 0.3-1.7% MnO<sub>2</sub>, 0.6-2.5% MgO, 0.6-3.2% CaO. Spectrographic examination showed the presence of Na, Al, Si, K, Ti, Cr, Cu, Ni, Co, Zn, Mn, Sr, Ba, Pb. Locally small amounts of Mn hydroxide minerals and Ca carbon polygorskite are observed. The thickness of the spheroidalite ores varies considerably between a few decimeters and 1.5-2 m. Usually the ore is concretionary, rarely in scaly secretions with small rhombohedrons of carbonates, also in fissures and small cavities pyrite, pyrolusite, hydrogoethite, quartz, hematite spherulites and polygorskite. Also brecciated aggregates of granular siderite are observed, with typical "cysts" inclusions of foreign material, org. or allophanoid, or country-rock fragments are observed. Heavy mineral accessories include magnetite and ilmenite, epidote-zoisite, garnet, ilmenite, sphene, staurolite, rutile, kyanite, tourmaline, spinel, light mineral accessories include apatite, chlorite, biotite, quartz, orthoclase, microcline, plagioclase, chaledony, muscovite, sercite. The chemistry of the Fe ores is characterized by reducing conditions due to the decomposition of org. matter. The presence of H<sub>2</sub>S in such a reducing medium is indicated by the formation of pyrite. The low degree of oxidation in the ores, in spite of their high level of occurrence near the surface, is due to the lack of circulating drainage waters, and of gas exchange underground.

W. Eitel

Lithology of the ore-bearing layers in the iron ore deposits of Omutain (G. I. Mungu'skaya - *Doklad y Akad Nauk SSSR* 67, T20, 321949). The observed Fe ores are spherulites, which are partly changed to hydroxide minerals in sandy or clayish layers, evidently formed in open isolated water basins, which were later filled by wind deposits of terrigenic material, and changed by circulating waters. The thickness of these layers varies between 8 and 24 m. Detailed granulometric analyses are given; evidently there is a change in the lithological character of the layers, which are more clayey in the upper, more sandy in the lower, parts. The mineral components of the different fractions are carefully discussed. The ore minerals include magnetite, ilmenite, diagenetic pyrite, epigenetic hydrogoethite, epidote, ansite, chlorite, lepto-chlorite, biotite, garnet, rare uvarovite, tourmaline, pi-cotite, sphene, staurolite, rutile, anatase, green horn-blende, glaucophane, muscovite, kyanite, apatite, and sillimanite. These minerals are classified as characteristic ("index"), and secondary, or accessory minerals, which are more or less regularly distributed, or enriched in the clayey or sandy parts of the layers. Quartz, plagioclase, and feldspar are associated with the magnetic-ilmenite group; chaledony, orthoclase with the secondary, microcline, opal, mica, and chlorite with the accessory minerals.

W. Eitel



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*P*

Sphalerite in Devonian sediments of southwestern Tatarstan L. M. Miropol'skii and G. L. Miropol'skaya *Doklady Akad. Nauk S.S.R.* **80**, 425-428 (1951); cf. "C.R." 40, 3101d. The assocn. of sphalerite with pyrite and silexite is typical for wide regions of the eastern Russian plateau. It is generally explained by diagenetic crystn. from fine-disperse impns. in a reducing medium. New deep borings gave important results concerning the secondary character of the formation of ZnS from H<sub>2</sub>O soils, the mineral is often observed on the walls of cavities of the country rock. The metasomatism is regional. Not only is it associated with sphalerite, but it is observed in all kinds of calcareous sediments and clayey sediments. The strongly reducing conditions are shown by the abundant org. fossil and bituminous layers locally rich in FeS, rarer with chalcopyrite. Quartz is usually older than ZnS, but calcite is always younger. Distinct crystals of ZnS are rare, mostly the mineral is fine-cryst. The crystals sometimes show a characteristic zoning with brownish and yellowish bands. The spectral analysis shows the presence of Fe (abundant), Cd, Cu, little Sn, and only traces of Mn and In. Local enrichments in Cd are not yet explained, also not the assocn. with chalcopyrite.

W. Eitel

MIRPOL'SKIY, L.M.; SOLOMTSOV, L.F.; MIRPOL'SKAYA, G.L.

Study of minerals in the lower Famennian deposits in eastern Tatar  
Republic and in neighboring regions of Bashkiria. Izv.Kazan.fil.AM  
SSSR. Ser.geol.nauk no.2:3-6 '54. (MLRA 8:11)  
(Tatar A.S.S.R.--Geology, Stratigraphic) (Bashkiria--Geology,  
Stratigraphic)

MIROPOL'SKAYA, O. L.

New data on a lithological study of the Bavlynnian series in Bavly.  
Izv.Kazan.fil.AN SSSR. Ser.geol.nauk no.2:7-11 '54. (MLRA 8:11)  
(Bavly--Petrology)

MIRPOL'SKAYA, G.L.

USSR/Geology - Petrography

Card 1/1 Pub. 22 - 36/48

Authors : Mirpol'skaya, G. L.

Title : New data on the lithology of the Pashinsk formation in East Tatar-SSR

Periodical : Dok. AN SSSR 98/3, 463-466, Sep 21, 1954

Abstract : New scientific-lithological data, regarding the Pashinsk formation in the eastern part of Tatar-SSR, are presented. Four USSR references (1951-1953).

Institution : Academy of Sciences USSR, Kazan Branch, Geological Institute

Presented by: Academician N. M. Strakhov, July 16, 1954

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,  
15-1957-10-13980  
p 93 (USSR)

AUTHOR: Miropol'skaya, G. L.

TITLE: A Brief Lithologic Description of the Ufimskie Rocks in  
Tatarstan (Kratkaya litologicheskaya kharakteristika  
ufimskikh otlozheniy na territorii Tatarii)

PERIODICAL: Izv. Kazansk, fil. AN SSSR, ser. geol. n., 1955, Nr 3,  
pp 69-79

ABSTRACT: The Ufimskie rocks of Tatarstan have been studied by  
means of drill cores and outcrop samples. Within Tatar-  
stan, the Ufimskiye rocks lie unconformably on Sakmarsko-  
Artinskije rocks and are overlain by transgressive, pre-  
dominantly clastic deposits. Carbonate rocks are minor,  
occurring chiefly in the lower part of the section. The  
fragmental rocks are calcareous to various degrees.  
Sandstones and siltstones grade into each other. They  
are polymict and are characterized by poor sorting and  
by different degrees of roundness. Grains and granule

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15-1957-10-13980

A Brief Lithologic Description of the Ufimskiy Rocks in Tatarstan

conglomerates are found chiefly in the eastern part of the region, where they were formed by erosion of the Sakmarsko-Artinskije and older Ufimskije rocks. Breccias of carbonate rocks are chiefly distributed in the western part of the region. Marls are the most abundant of the carbonate rocks. The sediment accumulation shows a marked rhythmic pattern. Upward in the section carbonates and secondary processes become less common. Coarsely fragmental and poorly sorted rocks are chiefly confined to the eastern region. Toward the west their quantity decreases and the degree of sorting and of grain-rounding increases. In the eastern region the Ufimskiy rocks are characterized by the formation of ocher, calcite, and dolomite; in the west they show the development of pyrite, gypsum, quartz, and bitumen. Red rocks in the eastern region give way to greenish-gray rocks on the west. The heavy-mineral fraction in the Ufimskije rocks does not generally exceed 1 to 2%. The mineral content is persistent, but the proportions of the individual minerals vary. The lower carbonate part of the section in the east has a signifi-

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15-1957-10-13980

A Brief Lithologic Description of the Ufimskiy Rocks in Tntarstan

cant content of pyrite, zircon, garnet, tourmaline, rutile, muscovite, picotite, and sphene. The quantity decreases upward in the section, but the content of black ore minerals, hydrogoethite, and members of the epidote group increases. In the alteration of the external appearance, of the textural-structural features, and of the composition of the Ufimskiy rocks, syngentic and diagenetic processes were important (sulfatization, dolomitization, pyritization, and submarine decomposition of clastic material). Weathering and alteration of weatnering products were also significant. Locally the formation of bitumen was extensive. It was associated with the introduction of oil from Paleozoic rocks and was accompanied by pyritization. The equivalent designation of the Ufimskiy deposits as the Ufimskiy series, belonging to the Lower Permian, is confirmed. The Ufimskiy rocks were formed in the littoral environment of a shallow sea with transgressive shore lines. The sea, transgressing from the east, increased in salinity. The clastic material came chiefly from the east, apparently from the western

Card 3/4

A Brief Lithologic Description of the Ufimskie Rocks in Tatarstan

15-1957-10-13980

slopes of the Urals and from the foothills. Clastic material  
was also derived from local rocks.

Card 4/4

Ye. V. Ostrovskaya

KIRSANOV, N.V.; MIROPOL'SKAYA, O. L.

Composition and genesis of argillites from the Givetian stage in the  
eastern Tatar A.S.S.R. Dokl. AN SSSR 103 no.3:491-494 Jl'55.  
(MLRA 8:11)

1. Geologicheskiy institut Kazanskogo filiala Akademii nauk SSSR.  
Predstavлено akademikom N.M.Strakhovym  
(Tatar A.S.S.R.--Agrillite)

MIROPOL'SKAYA, O. L.

Lithological characteristics of the Lower Givetian substage in the southeastern Tatar SSR. Dokl. AN SSSR 103 no.4:693-696 Ag'55.  
(MIRA 8:11)

1. Geologicheskiy institut Kazanskogo filiala Akademii nauk SSSR.  
Predstavлено академиком N.M.Strakhovym  
(Tatar A.S.S.R.--Petrology)

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

MIRPOL'SKAYA, G.L.

Data on the lithology of Ufimian deposits in the Tatar A.S.S.R.  
Izv. Kazan. fil. AN SSSR. Ser. Geol. nauk no.5:65-96 '56.  
(Tatar A.S.S.R.--Geology, Stratigraphic) (MLRA 10:4)

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

Translation from: Referativnyy zhurnal, Geologiya, 1987, No. 3,  
pp 77-78 (USSR) 15-57-8-6242

AUTHORS: Miropol'skiy, L. M., Miropol'skaya, G. L.

TITLE: Ankerite in the Lower Givetian Deposits of Eastern  
Tatariya (Ob ankerite v nizhnezhivetskikh otlozneniyakh  
na vostoche Tatarii)

PERIODICAL: Uzn. zap. Kazansk. in-ta, 1986, Vol 116, No 3, pp 190-  
193.

ABSTRACT: The authors describe a concretion of ankerite from the  
base of a sandstone ( $D_3$ ). The vertical diameter of the  
concretion is at least 10 cm. Megascopically the  
ankerite is dark gray and dense. Under the microscope,  
the principal part of the mass, localized in the central  
part of the concretion, is seen to have a granular  
structure. Isolated sections of fine-grained material  
may be seen against this background. In such sections  
the ankerite is uniformly turbid because of the disseminated  
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10-7-8-6242

Ankerite in the Lower Givetian Deposits of Eastern Tataryia (cont.)

nation of fine pelitic material. Coarser grained aggregates of ankerite are the result of recrystallization of the fine-grained material. Cone-in-cone structure in the upper and lower part of the concretion adds inhomogeneity to the ankerite. In these parts of the section, approximately at right angles to the direction of cone development, the ankerite has a megascopic mottled color. The cones in such sections have a concentric, zonal structure. The diameters of the bases of the cones do not exceed 1.5 cm, and the lengths range up to 1.4 cm. The microscope shows the individual cone to consist of a number of smaller cones enclosed within it. The number of these cones ranges from 3 to 14, and they are separated from one another by coatings of clay. The authors are inclined to believe that this cone-like structure developed in the ankerite by recrystallization of a special type, occurring at the surface of the concretion by metasomatism. The refractive indices of ankerite from the sections with the coarsest structure and of acicular crystals in the cones are No 1.742-1.738 and No 1.520-1.532. The specific gravity of the coarse-grained ankerite is near that of the acicular crystals. The ankerite in the cones, relative to the coarse-grained type, has Card 2/3

18-57-5-6242  
Ankerite in the Lower Cisvetian Deposits of Eastern Tatar'ya (Cont.)

a higher content of Ca and, in part, of Fe; the Mg content is lower.  
Card 7/3 K. M. R.

MIROPOL'SKAYA, G.L.

Brief lithological description of deposits of the Jivet stage and  
Pashiya series in the southeastern Tatar A.S.S.R. Izv. Kazan. fil.  
AN SSSR. Ser. geol. nauk no.4:3-52 '57. (MIRA 11:2)  
(Tatar A.S.S.R.--Rocks, Sedimentary)

MIROPOL'SKAYA, G.L.

Intermittent sedimentation in the Devonian terrigenous formation  
of the eastern Tatar A.S.S.R. Izv.Kazan. fil. AM SSSR. Ser.geol.  
nauk no.6:33-60 '57. (MIRA 12:1)  
(Tatar A.S.S.R.--Rocks, Sedimentary)

MIROPOL'SKAYA, G.L.

Some results of the study of the lithology and facies of Eifelian-  
Pashiya sediments in eastern Tatarstan. Izv.Kazan.fil. AN SSSR.  
Ser.geol. nauk no.9145-60 '60. (MIRA 15:12)  
(Tatar A.S.S.R.—Rocks, Sedimentary)

MIROPOL'SKIY, L.M., glav. red.; SEYFUL-KULYUKOV, R.B., otv. red.;  
AVER'YANOV, V.I., red.; MIROPOL'SKAYA, G.L., red.;  
URAZAYEV, I.M., red.; SHISHKIN, A.V., red.; YUSUPOV, B.M.,  
red.; KALANTAROV, A.P., red.izd-va; POLENKOVA, T.F., tekhn.  
red.

[Characteristics of the distribution of oil and gas fields  
in the Volga-Ural region] Zakonomernosti razmeshcheniya  
mestorozhdenii nefti i gaza Volgo-Ural'skoi oblasti. Mo-  
skva, Izd-vo AN SSSR, 1963. 365 p. (MIRA 17:2)

1. Kazanskiy filial AN SSSR (for Aver'yanov, Miropol'skaya,  
Urazayev, Yusupov).

KAYANOVICH, V.A.; KOZHEVNIKOVA, Z.I.; MIROPOL'SKAYA, I.L.; MIKHAYLOVA, N.P.;  
YADSEVA, A.I.; YOMICHEVA, D.N. (Gor'kiy)

Industrial hygiene and the health of women working with benzene.  
Gig. truda i prof. zabol. 2 no.1:26-31 Ja-# '8. (MIRA 11:3)

1. Institut gigiyeny truda i profzabolvaniy i Mediteinskij institut.  
(BENZENE--TOXICOLOGY)  
(LACTATION)

BLUDOVY, Aleksandr Pavlovich; MIRGIL'SKIY, L.M., prof., doktor nauk, mineral'nye otv. red.

[Coal of the Middle and Upper Paleozoic in the Volga-Ural Region.  
Ugol srednego i verkhnego paleozoya v Volgo-Ural'skom krae.  
Moskva, Nauka, 1964. 63 pp. 1 fig. (Akademicheskie izdaniya Akademii Nauk SSSR, 1964, No. 10.)]

MIROPOL'SKAYA, M. A.

10

*Synthesis of dimethylaminomethyl ether of diphenylcarbonyl benadryl and its salts.* N. V. Dankova, N. A. Mironovskaya, and M. A. Miropol'skaya. Zhur. Osnovnoi Khim. (J. Gen. Chem.) 21, 870 (1951). — Heating 18 g.  $\text{Cl}(\text{CH}_3)_2\text{Br}$ , 20 g. 40% NaOH, and 15 g.  $\text{Et}_2\text{NBr}$  at 38–40° 6–7 hrs., dilg. to dissolve the NaBr, spon. the oil, treating it with 3–5 ml. concd. HCl, spon. the residual oil, treating it with excess HCl, extg. with  $\text{Et}_2\text{O}$ , and evapn. the aq. soln. gave 58%  $\beta$ -dimethylaminopropyl chloride-HCl; free base, b. 105–6°. Reaction of 16.4 g.  $\text{Cl}(\text{CH}_3)_2\text{Br}$ , 13 g. 33% aq.  $\text{Me}_2\text{NH}$ , and 4 g. 40% NaOH 2–3 days at 12–14° extn. with  $\text{Et}_2\text{O}$ , and evapn. of the ext. acidification with HCl, extn. with  $\text{Et}_2\text{O}$ , and evapn. of the aq. soln. gave 52%  $\beta$ -dimethylaminopropyl chloride-HCl; free base, b. 134–5°. Heating 4 g.  $\text{Ph}_2\text{CHOH}$  with  $\text{Et}_2\text{ONa}$  from 0.8 g. Na and 12 ml. abs.  $\text{EtOH}$  20–30 min. on a steam bath, adding 2.5 g.  $\text{Me}_2\text{NCH}_2\text{CH}_2\text{Cl}$ , heating 0 hrs., adding  $\text{H}_2\text{O}$ , acidifying with HCl, extg. with  $\text{Et}_2\text{O}$ , treating the aq. soln. with  $\text{K}_2\text{CO}_3$ , and extg. with  $\text{Et}_2\text{O}$  gave 18%  $\text{Ph}_2\text{CHOCH}_2\text{CH}_2\text{NMe}_2$ , b. 172–4°;  $[\text{Cl}]$  salt, m. 103–4° (from  $\text{EtOH}$ – $\text{Et}_2\text{O}$ ). Analogously were prep'd.:  $\text{Ph}_2\text{Cl}_2\text{OCH}_2\text{CH}_2\text{CH}_2\text{NMe}_2$  (20%), b. 180–2°,  $d_{40}^{20}$  0.9203,  $n_D^{20}$  1.487 (HCl salt, hygroscopic solid), and  $\text{Ph}_2\text{Cl}_2\text{OCH}_2\text{CH}_2\text{NMe}_2$  (18%), b. 180–2°,  $d_{40}^{20}$  1.017,  $n_D^{20}$  1.443 (HCl salt, hygroscopic solid). Benadryl base, b. 172–4°,  $d_{40}^{20}$  1.020,  $n_D^{20}$  1.6485.  $\text{Me}_2\text{NCH}_2\text{CH}_2\text{Cl}$  (2.5 g.), 2.3 g.  $\text{PhCH}_2\text{OH}$ , and  $\text{Et}_2\text{ONa}$  (from 0.8 g. Na and 12 ml.  $\text{EtOH}$ ) gave 15%  $\text{Ph}_2\text{Cl}_2\text{OCH}_2\text{CH}_2\text{CH}_2\text{NMe}_2$ , b. 118–17°,  $d_{40}^{20}$  0.9087,  $n_D^{20}$  1.604 (HCl salt, m. 82–4° (from  $\text{Et}_2\text{O}$ – $\text{EtOH}$ )); similarly obtained were:  $\text{PACl}_2\text{OCH}_2\text{CH}_2\text{CH}_2\text{NMe}_2$  (20%), b. 142–4°,  $d_{40}^{20}$  0.9873,  $n_D^{20}$  1.6018 (HCl salt, hygroscopic solid), and the di-Me analog (20%), b. 125–7°,  $d_{40}^{20}$  0.9019,  $n_D^{20}$  1.600 (HCl salt, hygroscopic solid). G. M. Kosolapoff

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

SAMOKHVALOV, G. I.; MIROPOL'SKAYA, M. A.; VAKULOV, L. A.; PREOBRAZHENSKAYA, N. A.

Ionones

Complete synthesis of pseudo-ionone, ionones, geraniol, and nerol. Dokl. AN SSSR 84,  
No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

Miropol'skaya, M.A.

Chemical investigations in the field of vitamins A, E,  $\gamma$ -transcumaric acid and its condensation products with  $\alpha$ -ketones with the aid of metal organic derivatives of alkylvinyl acetylenes. G. I. Smokhvalov, I. A. O. I. Smokhvalova, M. N. Miropol'skaya, L. A. Vasil'eva, and N. A. Preobrajenskii. Zhur. Russ. Akad. Nauk. Nauch.-Tekhn. Vitamin. Issled. 10(1953). - The Reformatsky reaction of  $\beta$ -ketoesters ( $m.p. 146^\circ$ ) and  $\text{BrCC}_2\text{CHCO}_2\text{R}$  in the course of the Dorn and Arns synthesis of vitamin A proceeds through  $\text{R}'\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CH}_2\text{CH}_2\text{CHCO}_2\text{R}$  (I), where  $\text{R}' = \text{O}$ , diethyl-1-cyclohexenyl, which is readily decomposed to  $\text{R}'\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CH}_2\text{CH}_2\text{CHCO}_2\text{R}$  (II). On standing, the  $\text{CH}_2\text{CH}_2$  soln. yields a yellow-green ppt. consisting of an org. complex contg.  $\text{Zn}$  ( $Z_n 31.7$ ,  $B 38.4$ , and the org. residue 19.2%, resp.) which polymerizes on vacuum distn. It treated with dil.  $\text{AcOH}$  hydrolyzes to an ester (IV) which, upon treatment with  $\text{LiAlD}_3$  ( $\text{R} = \text{Me}$ ),  $m.p. 161.5-2.5^\circ$ , absorption max. 324  $\text{m}\mu$  by chromatography through an  $\text{Al}_2\text{O}_3$  column was shown to be nonhomogeneous.<sup>11</sup> Synthetic reactions in the field

of polyenes compounds with the aid of metal organic derivatives of alkylvinyl acetylenes. G. I. Smokhvalov, I. A. O. I. Smokhvalova, M. N. Miropol'skaya, and N. A. Preobrajenskii. Zhur. Russ. Akad. Nauk. Nauch.-Tekhn. Vitamin. Issled. 10(1953). - By the method by A. A. Petrov (C.A. 55, 35239)  $\text{RCH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CH}_2\text{CH}_2\text{CHCO}_2\text{R}$  ( $\text{R} = \text{Me}, \text{C}_2\text{H}_5$ ,

$\text{CH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})$ ) was condensed with  $\text{LiC}_2\text{CC}(\text{OEt})_2$ :  $\text{CH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})$  to give  $\text{RCH}_2\text{CH}_2\text{CHCMe}(\text{OEt})\text{CHC}(\text{OEt})_2$ ;  $\text{CH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})$  which with  $1\%$   $\text{HgSO}_4$  in alc. yielded  $\text{RCH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CHC}(\text{OEt})_2$  (IV); semicarbazone,  $m.p. 200-1^\circ$ . The conjugated system of the unsatd. bonds of IV is shown by a characteristic ultraviolet absorption max. at 384  $\text{m}\mu$  ( $\log \epsilon = 4.17$ ). Upon hydrogenation of the acetylenic group of IV the compd.  $\text{RCH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CHC}(\text{OEt})_2$  (V) was obtained which was used for the synthesis of vitamin A (VI) by treatment with  $\text{BrMgC}_2\text{COEt}$  to give  $\text{RCH}_2\text{CH}_2\text{CHCMe}(\text{O}_2\text{C}\text{Et})\text{CHC}(\text{OEt})_2$  (VII).  $\text{LiAlD}_3$  treatment of VII gave VI. The mechanism of the reaction of polyene carboxyl compds. with metal-org. derivs. of alkylvinylacetylenes to form new polyenic conjugated carbonyl compds. is discussed.

P. Wiericki

MIROPOL'SKAYA, M.A.

Vitamin A<sub>1</sub>. III. Structure of products of condensation of  $\beta$ -ionone with esters of  $\gamma$ -butanocrotonic acid by the Reformatskii method. G. I. Semochkalov, M. A. Miropol'skaya, L. A. Vakulova, and N. A. Prokof'ev.

*Izdat. Nauch. Issledovaniel. Vitamin. Tzaz. 5, 5-10 (1954); cf. C.A. 50, 1984, 4077d.* Treatment of 25 g.  $\beta$ -ionone with 42.5 g. Et  $\gamma$ -bromocrotonate and 21.5 g. Zn in refluxing C<sub>6</sub>H<sub>6</sub> (Zn was pretreated with HgCl<sub>2</sub>; after heating with H<sub>2</sub>SO<sub>4</sub>) gave after 1 hr, 8.4 g. crude acid (I),  $\lambda$  315 m<sub>s</sub>. This on hydrogenation over Pt gave perhydro- $\beta$ -ionylideneacrylic acid, isolated as the pseudothiuronium salt, m. 140-60°. The alkali-resistant portion of the product was refluxed with alc. KOH under N 2 hrs, yielding 16% *trans*- $\beta$ -ionylideneacrylic acid, m. 157-8°, and the *cis* isomer (0.2-0.8 g.), m. 140-1°. I treated with MeLi in Et<sub>2</sub>O gave a ketone, yellow oil,  $\lambda$  315 m<sub>s</sub>; 2,4-dinitrophenylhydrazone, Cu(II)O<sub>2</sub>, m. 128-32°. Reduction of I with LiAlH<sub>4</sub> gave a carbinal, yellow oil,  $\lambda$  315 and 300 m<sub>s</sub>.

G. M. Komoloff

RM mt

USER/ Physics - Spectral analysis

Card 1/1 Pub. 43 - 30/62

Authors

Slovokhatova, N. A.; Samokhvalov, G. I.; Miropol'skaya, M. A.; Vakulova, L. A.; Zhukova, L. P.; and Preobrazhenskiy, V. A.

Spectroscopic investigation of the mechanism of condensation reaction of beta-ionone with ethyl ether of gamma-bromocrotonic acid

Periodical

Izv. AN SSSR. Ser. fiz. 18/6, 692-693, Nov-Dec 1954

Abstract

The products of beta-ionone condensation with esters of gamma-bromo-crotonic acid were investigated in a benzene solution under the effect of metallic zinc. It was established that the reaction is concluded by total dehydration and formation of unsaturated ester. The product of beta-ionone reaction with ethyl ether of gamma-bromocrotonic acid was subjected to rectification in vacuo and the properties of the 22 fractions obtained therefrom are described. The basic condensation product was found to be an unstable ester, a product of anionotropic regrouping and dehydration of the intermediate hydroxyester. Graph.

Institutions: The L. Ya. Karpov Phys-Chem. Inst.

Submitted : ....

MIROPOL'SKAYA, M. A.

Several publications in the literature describe the study of isomerization of cyclohexene oxide to cyclohexene. A recent review by G. M. Kosolapoff, G. M. Kosolapoff, and M. J. Szwarc, *Topics in Heterocyclic Compounds*, 26, 2222-30 (1960), gives references of the infrared spectra of several intermediates in the synthesis of vicinal diols given. Pseudodisulfone (either synthetic from methylbenzenes or from natural oil) shows intense triplet at 1675-1690 cm.<sup>-1</sup>, coincident with the conjugated system; thus the 1675 band is probably caused by CO, the 1690 by the C:C bond, and 1656 by isolated olefinic H's. However, synthetic pseudodisulfone has a band at 1700 cm.<sup>-1</sup>, indicating the presence of  $\text{Me}_2\text{C}(\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2)\text{CMe}_2$ ; the synthetic product also shows more intense 582 band in comparison with the 515 band; natural product shows equal intensity of both bands; thus the synthetic material contains more cis isomer. In 2400 band region the synthetic product shows a 5-fold greater intensity of absorption than does the product

from ester; this can be explained by partial emulsion, which is apparently more readily attained in the synthetic product. The  $\alpha$ -monofluorocrotonate was purified by adsorption on  $\text{Al}_2\text{O}_3$ , followed by elution in the form of 6 successive fractions. The pure ester used as reference was prep'd. from the free acid and  $\text{CH}_3\text{N}$ ; this showed bands at 1700  $\text{cm}^{-1}$  ( $\text{CO}$  in ester group), 1270, 1200, and 1170 ( $\text{MeO}$  group in the ester), as well as 1140 (1 of the modes of ester-group vibration); 1040 and 1020 bands are assoc'd. with the configuration of the polyene chain with the ester group; the cyclohexene ring is proved by 1180, 1460, and 1660  $\text{cm}^{-1}$  bands, the latter being masked by 1700 and 1600 bands. The spectra of the 1st 3 chromatographic fractions show a wide double max., 1700 and 1720, a shifted band at 1610, which may be attributed to isomeric structures obtained by allylic and prototropic rearrangements of the initial ester; the 4th fraction shows intense max. at 3380 ( $\text{OH}$  assoc'd. with H-bonds), 1700, and 1580-1600  $\text{cm}^{-1}$ , indicating the formation of a side chain,  $\text{MeO}-\text{C}(\text{H})=\text{CH}-\text{CH}(\text{Me})-\text{CH}=\text{CH}_2$ , on the cyclohexene ring. The formation of isomers can be expected in the Reformatskii method of synthesis with Zn reagent.

G. M. Kosolapoff

**APPROVED FOR RELEASE: Wednesday, June 21, 2000**

CIA-RDP86-00513R001134

Miropol'skaya, M. A.  
USSR/Chemistry

Card 1/1 Pub. 22 - 23/40

Authors : Samokhvalov, G. I.; Miropol'skaya, M. A.; Vakulova, L. A.; Zhukova, L.P.;  
Title : Slovoekhotova, N. A.; Malyusov, V. A.; and Preobrazhenksiy, N. A.  
Aniontropic and prototropic regroupings during the synthesis of polyene  
compounds

Periodical : Dok. AN SSSR 99/2, 273-276, Nov 11, 1954

Abstract : Data on the aniontropic and prototropic regroupings, observed during the synthesis of polyene compounds, are presented. It was found that the reaction between beta-ionone and esters of gamma-bromocrotonic acid (Reformatsky reaction) results not only in the formation of hydroxy-carboxylic acid esters but also in the migration of the hydroxyl (aniontropic regrouping) toward the end of the conjugated system and consequent dehydration. The conditions under which the migration of the hydrogen (prototropic regrouping) and elongation of the chain of conjugated double bonds take place are discussed. The two tendencies of the prototropic regrouping are explained. Nine references: 3-USA; 3-USSR; 2-French and 1-Swiss (1946-1953). Graphs.

Institution : All-Union Scientific Research Vitamin Institute

Presented by : Academician I. L. Knunyants, June 25, 1954

MILORADUKAYA, M. A.

MILORADUKAYA, M. A. "Synthetic investigation of the -lyene compounds.  
Moscow, 1971. M. n. Higher Education. Moscow Inst. of Fine Chemical Tech.  
n. Ilyayimov. (Dissertation for the degree of Candidate of Chemical  
Sciences.)

SD: Knizhnaya Letopis' N. S., t. 12 Number 19. Moscow

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.; VAKULOVA, L.A.; PREOBRAZHENSKIY, N.A.

Full synthesis of pseudoionone. Zhur.ob.khim. 25 no.3:545-550 Mr '55  
(Pseudoionone) (MLRA 8:6)

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

MIROPOLSKAYA, M. A.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001134

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001134

*MIROPOL'SKAYA, M. A.*

*Chum* ✓ Synthesis of nerol and geraniol. G. I. Samokhvalov,  
M. A. Miropol'skaya, and N. A. Proshkina. *Zhur. Obshch. Khim.*, 24, 54-6 (1950); *J. Gen. Chem. U.S.S.R.*, 26, 53-6 (1950) (Engl. translation); cf. *C.A.*, 47, 32772. — 6-Methyl-5-hepten-2-one (12.7 g.) and 17.8 g.  $\text{BrCH}_2\text{CO}_2\text{Me}$  in 80 ml.  $\text{C}_6\text{H}_6$  was gradually added to 9 g. activated Zn under dry  $\text{C}_6\text{H}_6$  at reflux; after further heating 20-30 min., the cooled mixt. was treated with 10% AcOH and the org. layer, after washing, yielded 76-8%  $\text{Me}_2\text{C}(\text{CH}_2\text{CH}_2\text{CH}_2\text{CMe}_2)(\text{CH}_2\text{CH}_2\text{CO}_2\text{Me})$  (I), b.p. 108-10°,  $d_4^{20}$  0.9744,  $n_D^{20}$  1.4608, which refluxed 6 hrs. with excess  $\text{Ac}_2\text{O}$  gave 86-87% corresponding acetate, b.p. 118-20°,  $d_4^{20}$  0.9938,  $n_D^{20}$  1.4608. This heated with KOAc maintaining vapor temp. below 180° gave a dil. ester of AcOH and a residue of 70-72%  $\text{Me}_2\text{C}(\text{CH}_2\text{CH}_2\text{CH}_2\text{CMe}_2)\text{CH}_2\text{CO}_2\text{Me}$ , b.p. 103-5°; this (8.5 g.) reduced with 2.3 g. LiAlH<sub>4</sub> in  $\text{Et}_2\text{O}$  at -60°, finally at -30°, gave 87.5-90% mixt. (II) of nerol and geraniol, b.p. 104-6°;  $d_4^{20}$  0.8892,  $n_D^{20}$  1.4741. To 48 g.  $\text{KMnO}_4$  in 300 ml.  $\text{H}_2\text{O}$  at 60-70° was added simultaneously from 2 funnels 84 g. KOH in 80 ml.  $\text{H}_2\text{O}$  and 45.5 g.  $\text{MnSO}_4$  in 40 ml.  $\text{H}_2\text{O}$ ; after gradual cooling 2 hrs., the resulting active  $\text{MnO}_2$  was washed with  $\text{H}_2\text{O}$  and dried *in vacuo*. This (20 g.) shaken 3 hrs. with 2 ml. II in 100 ml.  $\text{petr. ether}$  gave 80-91% citral, b.p. 94-7°,  $n_D^{20}$  1.4812; *semicarbazone*, m.p. 130-6°. The latter deposited on  $\text{Al}_2\text{O}_3$  from  $\text{CHCl}_3$  and eluted with  $\text{CHCl}_3$ , the zone movement being followed by ultraviolet fluorescence, gave first an eluate of nerol (semicarbazone, m.p. 169-70°), then a low yield of geraniol (semicarbazone, m.p. 101-2°). I (18 g.) in 80 ml.  $\text{C}_6\text{H}_6$  added to refluxing soln. of 6.8 g.  $\text{POCl}_3$ , 80 ml.  $\text{C}_6\text{H}_6$ , and 30 ml. pyridine and boiled 40-60 min., cooled, treated

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Samokhvalov, G. I., Miropol'skaya, M. A., and Preobrazhenskii, N. A.

with ice, and the org. layer washed with dil.  $H_2SO_4$  and  $NaHCO_3$ , gave 68%  $Mg$  stearate, b.p. 90-92°, which with  $LiAlH_4$  gave 89% alc.  $C_{17}H_{34}O$ , b.p. 97-8°, which oxidized as above with  $MnO_2$ , gave 81% citral, b.p. 92-93°. O. M. K.

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MIROPOL'SKAYA, M.A.

Polyene compounds. V. Direction and stereochemical specificity of dehydration of esters of 3,7-dimethyl-*o*-octen-1-*o*-acid<sup>1</sup> and 3,5-dimethyl-2,6-decadien-1-*o*-oleic acid. G. I. Saniokhvalov, M. A. Mironovskaya, and N. A. Proshkinaeva. *Zhur. Osnovat. Khim.* 26, 2703-7 (1966); *J. Org. Chem.* 30, 3220, 1271 (1965). -- Dehydration of esters of the above cited acids yielded compounds with 2,3- and 3,4-double bonds and cis- and trans-substituents at this double bond. Pyrolysis of the *Ac* derivs. of the acids, however, yielded predominantly the 2,3-trans-deriv. with trans structure; P. halides yield mainly the cis isomers with 2,3- and 3,4-double bonds. *PBr*, (12.7 g.) and 1.7 ml. pyridine treated at 50-60° with 16.2 g. Et 2,7-dimethyl-*o*-octen-3-*o*-oate, followed by 6 ml. pyridine, and the mixt. stirred 0.5 hr. at 50-60°, cooled to 0°, add. with  $H_2O_2$ , and extd. with  $Et_2O$ . gave 78.5% mixed *trans*-3,7-dimethyl-3,5- and 3,6-octadienes. *Molar* b.p. 110-127°, n<sub>D</sub><sup>20</sup> 0.9248; the mixt. (9.1 g.) reduced with 2.2 g. LiAlH<sub>4</sub> at -30° in  $Et_2O$  gave 50% mixed 3,7-dimethyl-3,8- and 3,6-octadien-1-*o*-ole, b.p. 98-100°/10 mm. (3.7 g.) shaken with 80 g.  $Al_2O_3$  in petr. ether 8 hr. gave 78% crude citral, b.p. 84-86°, constg. 0.263% active H and 40% unoxidizable 3,7-dimethyl-3,6-octadien-1-*o*(1)-the oxidation product with  $H_2NCONHNH_2$  yielded 55% crude citral semicarbazone, m. 180-8°, confirming the above statement. The crude semicarbazone (200 mg.) adsorbed on  $Al_2O_3$  from  $CHCl_3$  and the column washed with 400 ml.  $CHCl_3$  gave from the eluate 12 mg. *neral semicarbazone*, m. 170-1°; subsequent elution with  $CHCl_3-Et_2OH$  gave 123 mg. *geranal semicarbazone*, m. 102-3°. When the initial ester was dehydrated with  $POCl_3$ -pyridine and treated as above, the yield of 1 was 16-17%; the other results were similar to the above. Dehydration of Et 6,8-dimethyl-2,8-decadien-5-

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*Samsk Hydrazo*

citra with  $\text{Ph-N}_2\text{-pyridine}$  as above gave 77% of 6,9-dimethyl-2,4,8-decahydron-1-ol, b.p. 109-11°,  $\lambda = 276$  m $\mu$ , yielding with 10% aq. KOH the free acid, a yellow oil, which with  $\text{MeLi}$  in  $\text{Et}_2\text{O}$  gave 80% pseudotetone, b.p. 96-8° (2,4-dinitrophenylhydrazone, m. 182-0°). The crude product in  $\text{CHCl}_3$  adsorbed on  $\text{Al}_2\text{O}_3$ , washed down with  $\text{CHCl}_3$ , and the lower highly-colored band eluted with  $\text{CHCl}_3$  yielded (from 200 mg. original hydrazone) 175 mg. pure pseudotetone-3,4-dinitrophenylhydrazone, m. 148-0°, corresponding to the *geranyl* series, while the lower less-colored band, eluted with  $\text{CHCl}_3\text{-EtOH}$ , gave 21 mg. 2,4-dinitrophenylhydrazone of pseudotetone, m. 118-10°, corresponding to the *neral* series. Natural citral yielded a 2,4-dinitrophenylhydrazone, which, treated as above on  $\text{Al}_2\text{O}_3$ , gave (from 200 mg.) 188 mg. isomer, m. 148-0°, and 12 mg. isomer, m. 118-10°, identical with the above samples.

C. M. Kosolapoff

*PM* *MT*

PHILIP, John; <sup>2</sup> KUZNETSOV, N.V.; SAMKOVICH, I.I.; VIBER, I.P.; KATA, M.;  
YANOVSKII, M.L.; VENAKS, A.I.; FEDOROV, V.

Selected examples of the selectivity of catalysts in the process  
of hydrogenation of the isoprene group. report No. 1: Hydrogenation  
of  $\alpha$ -methyl- $\beta$ , $\beta$ -epoxidien- $\gamma$ -one on nickel catalysts. Izv. Akad. Nauk.  
Ser. khim. No. 1: 196-1903 - 1e 164.

(MIA 171)  
1. Institut organicheskoy khimii im. N.N. Lebedeva AN SSSR i  
Vsesoyuznyy nauchno-issledovatel'skiy i vithminnyy institut.

SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.; PREOBRAZHENSKIY, N.A.

New method of synthesizing polyene ketones with conjugate double bonds. Dokl. AN SSSR 107 no.1:103-104 Mr '56. (MLRA 9:7)

1. Predstavлено академиком I.L.Kunyantsem.  
(Ketones)

Miropol'skaya, M. A.

Synthesis of polymeric ketones with conjugated double bonds. G. I. Samokhvalov, M. A. Miropol'skaya, and N. A. Preobrazhenskii. Proc. Acad. Sci. U.S.S.R., Sect. Chem., 107, 151-2 (1958) (Eng. translation).—See C.A. 50, 138200. B. M. R.

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MIROPOL'SKAYA, M.A.

SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.; LUK'YANOVA, L.V.; PREOBRAZHENSKIY,  
N.A.

Synthesis of polyene compounds. Part 13: Synthesis of polyene  
ketones by pyrolysis of acetoacetic esters of tertiary acetylene  
carbinols. Zhur. ob. khim. 27 no.9:2501-2506 S '57. (MIRA 11:3)  
(Pyrolysis) (Ketones) (Esters)

PIRSON, I. [Pierson, E.]; MIROPOL'SKAYA, M.A. [translator]

Vitamin B<sub>1</sub> (thiamine). Vitaminy no. 5836-49 '59.

(MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
(THIAMINE)

ANOSOV, V.I.; SAVOSTIN, A.M.; PINES, V.G.; MILYUTKINA, V.P.; MIROPOL'SKAYA, M.A.;  
FEDOTOVA, N.I.; SAMOKHVALOV, G.I.

Preparation of  $\gamma$ , $\gamma$ -dimethylallyl alcohol and isopropenylethyl  
alcohol from the product resulting from the condensation of iso-  
butylene. Zhur. ob. khim. 31 no.4:1154-1157 Ap '61.

(MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
(Butenol) (Pentenol)

MIROPOL'SKAYA, M.A.; FEDOTOVA, N.I.; VEYNBERG, A.Ya.; YANOTOVSKIY, M.TS.;  
SAMOKHVALOV, G.I.

Synthetic investigations in the field of polyene compounds.  
Part 18: Selective hydrogenation of 6-methyl-3,5-heptadien-2-ol by Pd/CaCo<sub>3</sub>. Zhur.ob.khim. 32  
no.7:2214-2217 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
(Heptadienone) (Heptadienol) (Hydrogenation)

MIRONOVSKAYA, M.A.; MEL'NIK, S.Ya.; FRADKINA, T.S.; SAMOKHALOV, G.I.;  
PETROV, A.D.

Selective reduction of 6-methyl-3,5-heptadiene-2-one by trialkoxy-  
and trialkylsilane hydrides. Dokl. AN SSSR. 144 no.6:1312-1313  
Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut i  
Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk  
SSSR.
2. Chlen-korrespondent Akademii nauk SSSR (for Petrov).  
(Heptadienone) (Silane)

FREYDLIN, L.Kh.; SHARF, V.Z.; SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.;  
PRIVALOVA, I.M.; YANOTOVSKIY, M.TS.

Catalytic dehydration of 3-methyl-1,3-butanediol. Neftekhimika  
3 no.1:104-107 Ja-F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo  
i Vsesoyuznyy nauchno-issledovatel'skiy vitamininnyy institut.  
(Butanediol)  
(Dehydration (Chemistry))

ACC NR: AP7013144

SOURCE CODE: UR/0079 66/036 011 1905/1909

AUTHOR: Mel'nik, S. Ya.; Miropol'skaya, M. A.; Samokhvalov, G. I.

ORG: All-Union Scientific Research Vitamin Institute (Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut)

TITLE: Investigations in the field of complex lipids. Synthesis of (alpha,beta-dipalmitoyl)phosphatidyl-N-(DL-alanyl)-ethanolamine, N-(DL-alanyl)-cephaline

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 1905-1909

TOPIC TAGS: lipide, amine derivative, chemical synthesis, organic phosphorus compound

SUB CODE: 07

ABSTRACT: Two possible ways of synthesizing N-aminoacyl derivatives of phosphatidylethanolamines by the reaction of silver salts with the corresponding iodo-derivatives were studied. (Alpha, beta-dipalmitoyl)-phosphatidyl-N-(DL-alanyl)-ethanolamine, or N-(DL-alanyl)-cephaline was synthesized according to the following scheme. The reaction of N-(phthaloyl-DL-alanyl)-ethanolamine with thionyl chloride under very mild conditions yielded N-(phthaloyl-DL-alanyl)-2-chloroethylamine, which, by the action of sodium iodide in methyl ethyl ketone, was converted to N-(phthaloyl-DL-alanyl)-2-iodoethylamine. Condensation of the latter

Card 1/2

UDC: 547.915 + 547.468  
0933 0850

ACC NR: AP7013144

with the silver salt of benzyl-(alpha,beta-dipalmitoyl)-alpha'-glycerylphosphoric acid yielded a phosphotriester, benzyl-(alpha,beta-dipalmitoyl)-alpha'-glyceryl-N-(phthaloyl-DL-alanyl)-aminoethylphosphate. Debenzylation of the latter with lithium bromide in acetone medium yielded the lithium salt of (alpha,beta-dipalmitoyl)-alpha'-glyceryl-N-(phthaloyl-DL-alanyl)-aminoethylphosphoric acid, which was cleaved to N-(DL-alanyl)-cephaline using hydrazine hydrate. The infrared spectrum of the compound synthesized was studied; the reactions were followed by thin-layer chromatography. The method described can be used to produce analogs of N-(DL-alanyl)-cephaline containing unsaturated fatty acids in the glycerine portion of the molecule. Orig. art. has: 1 figure and 1 formula. [JPRS: 40,351]

Card 2/2

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Use synthetic naphtho-isophthalic acid, which is a derivative of  
stir itellative (Unions)

Page 142

SO: Collection of Annotations of Scientific Research Work on Construction,  
completed in 1950. Moscow, 1951

MIROPOL'SKAYA, N.K., inzh., mladshiy nauchnyy sotrudnik; ROGOVSKIY, L.V.,  
~~rukovoditel'~~; ZAKHARENKO, V.I., red.izd-va; MEL'NICHENKO, F.P.,  
tekhn.red.

[Transportation of excavated soil] Transport grunta ot otkrav-  
torov. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit.  
materialam, 1958. 49 p.

1. Laboratoriya zemlyanykh rabot Nauchno-issledovatel'skogo  
instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi  
stroitel'stva (for Miropol'skaya, Rogovskiy).  
(Earthmoving machinery)

SOKOLOV, K.M.; YEVSTAF'EYEV, S.V.; ROSTOTSKIY, V.K.; GRECHIN, N.K.; STANKOVSKIY, A.P.; BAUMAN, V.A.; BIRKMAN, I.L.; BORODACHEV, I.P.; BOYKO, A.G.; VALUTSKIY, I.I.; VATSSLAVSKAYA, L.Ya.; VOL'FSOM, A.V.; DOMBROVSKIY, N.G.; YANUB, M.Ya.; YHVROMONKO, V.P.; ZIMIN, P.A.; IVANOV, T.A.; KOZLOVSKIY, A.A.; KOSTIN, M.I.; KRIMERMAN, M.N.; LINEVA, M.S.; MEDENKOV, A.S.; MIROPOL'SKAYA, N.K.; PETROV, G.D.; REBROV, A.S.; ROGOVSKIY, L.V.; SMIRNOV, G.Ya.; SHAFHANSKIY, V.N.; SHIMANOVICH, S.V.; SHNEYDER, V.A.

Eugenii Richardovich Peters; obituary; Mekh. stroi. 15 no.1:3 of cover  
Ja '58. (MIRA 11:1)

(Peters, Eugenii Richardovich, 1892-1957)

/Памятка/

SOKOLOV, K.M.; YEVSTAFYEYEV, S.V.; ROSTOTSKIY, V.K.; STANKOVSKIY, A.P.;  
VARENIK, Ye.I.; ONUFRIYEV, I.A.; SVESHNIKOV, I.P.; UKHOV, B.S.;  
BAUMAN, V.A.; BARSOV, I.P.; BASHINSKIY, S.V.; BOYKO, A.G.; VALUTSKIY,  
I.I.; ZAPOL'SKIY, V.P.; ZOTOV, V.P.; IVANOV, V.A.; LAZARIKOV, V.M.;  
LEVI, S.S.; MAIOLETKOV, Ye.K.; MERENKOV, A.S.; MIROPOL'SKAYA, N.K.;  
OSIPOV, L.G.; PEREL'MAN, L.M.; PETROV, G.D.; PETROV, N.M.; POLYAKOV,  
V.I.; VATSSLAVSKAYA, L.Ya.; VAKHRAZEEV, S.A.; VERZHITSKIY, A.M.;  
VLASOV, P.A.; VOL'FSOHN, A.V.; VOSHCHININ, A.I.; DZHUNKOVSKIY, N.N.;  
DOMBROVSKIY, N.G.; YEPIPAROV, S.P.; YEFREMENKO, V.P.; ZELICHENOK, G.G.;  
ZIMIN, P.A.; POPOVA, N.T.; ROGOVSKIY, L.V.; REBROV, A.S.; SAPRYKIN, V.A.;  
SOVALOV, I.G.; SOSHIN, A.V.; STARUKHIN, N.M.; SURENYAN, G.S.; TOLORAYA,  
D.F.; TROITSKIY, Kh.L.; TUSHNYAKOV, M.D.; FROLOV, P.T.; TSIRKUNOV, I.P.

Andrei Vladimirovich Konorov; obituary. Mekh. stroi. 16 no.1:32 Ja  
'59. (MIRA 12:1)

(Konorov, Andrei Vladimirovich, 1890-1958)

ROGOVSKIY, L.V.; MIROPOL'SKAYA, M.K.; KRIVONOSOV, V.A.; LEZHCHILOVSKIY,  
V.P.; GADZEVICH, V.I., red.; KLIMOVA, G.D., red.izd-va;  
SHERSTNEVA, N.V., tekhn.red.

[Instructions for conducting and inspecting earthwork carried  
out by one-bucket excavators I 01-60] Instruktsiya po proiz-  
vodstvu i priemke zemlianykh rabot, vypolniaemykh odnokovshovymi  
ekskavatorami I 01-60. Moskva, Gos.izd-vo lit-ry po stroit.,  
arkhit. i stroit.materiamam, 1960. 68 p. (MIRA 13:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organi-  
zatsii, mekhanizatsii i tekhnicheskoi pomoshchi stroitel'stva.
2. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii  
i tekhnicheskoy pomoshchi stroitel'stva (for Rogovskiy, Miropol'skaya).
3. Gosudarstvennyy proyektnyy institut Spetsstroyprojekt Minstroya  
RSFSR (for Krivonosov, Leshchilovskiy).

(Earthwork) (Excavating machinery)

ROGOVSKIY, L.V., inzh.; MIROPOL'SKAYA, N.K., inzh.; VESTERSKIY, N.M.,  
inzh.; NI, V.N., kand.tekhn.nauk; VLASOV, P.Ye., red.izd-vs;  
YUDINA, L.A., red.izd-vs; MEDVEDEV, L.Ia., tekhn.red.;  
OSIMKO, L.M., tekhn.red.

[Handbook on building; earthwork] Spravochnik po obshche-  
stroitel'nym rabotam; zemlianye raboty. Moskva, Gos.izd-vo  
lit-ry po stroit., arkhit. i stroit.materiam, 1960. 405 p.  
(MIRA 14:2)

(Earthwork)

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

100,000 lire, being insufficient time; 7,000 lire, per.

Safety panels, 500 lire each; 100 lire, each panel  
anti-luminous, 100 lire, each, anti-pollution, 100  
luminous, 100 lire, each, 100 lire, each, 100 lire,  
protectant, 100 lire, each.

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CIA-RDP86-00513R001134

L 55115-65 EWT(m)/EWG(m)/EWP(t)/EWP(b) IJP(o) RDW/JD  
ACCESSION NR: AP5016717

UR/0286/65/000/010/0019/0019

546.23.24

AUTHOR: Miropol'skaya, N.V.; Ravvich, M.A.; Mudrova, A.I.; Morozov, I.F. 18  
Gerasimov, V.S.

B

TITLE: Method of separating selenium and tellurium. Class 12, No. 170921

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 19

TOPIC TAGS: separation method, selenium, tellurium, selenium separation, tellurium separation, iodine monochloride, iodine monochloride catalyst

ABSTRACT: A method of separating selenium and tellurium by treating solutions containing selenious and tellurous acids with a reducing agent in hydrochloric acid medium with subsequent separation of the precipitated free selenium from the solution. The method is characterized by the fact that in order to increase the purity of the products of separation and increase their yield trivalent arsenic is used as reducer, and the reduction is carried out in the presence of iodine monochloride as catalyst.

[11]

Card 1/2

L 55115-65

ACCESSION NR: AP5016717

ASSOCIATION: none

SUBMITTED: 04Oct62

ENCL: 00

SUB CODE: IC, GC

NO REF Sov: 000

OTHER: 000

ATD PRESS: 4024

Card 2/2

MININICHAYA, T. V.

Suz. - Mac. Inv.

Constructing a curve of growth for the star Delta-1 Lyrae. By T. V. Mininichaya. Izv. byz. astron. ser. 1., v. 1.

Monthly List of Russian Publications, Library of Congress  
June 1974, p. 11.

RODE, N.; BARASHINA, A.; LUKERIN, V.; BUKCHIN, I.; MIROPOL'SKAYA, S.,  
starshiy ekonomist, SHVEYKO, T., rabotnik PAVETKINA, L., rabotnik

Bank statistics and methods for their mechanization. Den. 1  
kred. 20 no. 55-63 Je 54. (MIRA 15:6)

1. Glavnnyy bukhgalter Latviyskoy respublikanskoy kontory  
gosudarstvennogo banka (for Rode). 2. Glavnyy bukhgalter Orlovskoy  
oblastnoy kontory gosudarstvennogo banka (for Barashina). 3. Glavnyy  
bukhgalter Tadzhikskoy respublikanskoy kontory gosudarstvennogo  
banka (for Lukerin). 4. Zamestite glavnogo bukhgaltera Kurskoy  
oblastnoy kontory gosudarstvennogo banka (for Bukchin).  
5. Khersonskaya oblastnaya kontora gosudarstvennogo banka (for  
Miropol'skaya). 6. Glavnaya bukhgariya Stavropol'skoy  
krayevoy kontory gosudarstvennogo banka (for Shveyko Pavetkina).  
(Banks and banks. - Statistics)  
(Machine accounting)

8(6)

7-1-28

AUTHORS: Burenkov, K.F., Lyubakov, N.S., and Vinnik, V.V.  
Ye.S., Engineers

TITLE: The Utilization of Ashes and Slags from Electric Power  
Plants (Isspol'zovaniye zoly i shlagov v tselostrukturakh)

PERIODICAL: Inzenerika, Moscow, No. 1, pp. 47-53, 1983.

ABSTRACT: The authors discuss the possibility of utilizing plant  
ash and ashes for producing slag-concrete blocks for building  
purposes. Research on utilization of slag-concrete  
blocks was carried jointly by the Centralnyi vysokotemperaturnykh  
material'nykh materialov NII Morskogo gospodarstva "Or-energostroy" (Department of New Building Materials  
of the NIS, Moscow), "Or-energostroy" Institute for  
and the Chernogolovka GRES, based on their experience.  
The authors outline the basic organization and technological  
data for the production of blocks and concrete  
from ash-slag wastes of thermal power plants and dolomitic  
limestone for fuel. This includes: 1) the planning and  
building of plants for the production of large ash-con-

Card 1/2

SCV/1-1-2-2/

The Utilization of Ash-clay Clay from Thermal Power Plants

blocks should be carried out concurrently with the building of thermal power plants; 2) at the operation TESO and GRES, the ash-clay processing plants should be built in the proximity of coal dumps; 3) the minimum annual output of ash-clay blocks should be in' t<sup>o</sup> 10<sup>6</sup> m<sup>3</sup>; 4) the operation should be carried out for one year. An ash-slag concrete type "SC-10C" is used for ash-slag concrete in finished state in TESO and GRES. Binding materials should be Portland cement and slag-Portland cement and lime. Recommended firing of natural ash-clay wastes with no less than 10% of the content, artificial ash-clay mixtures, and dry ash. Also recommended are calcium chloride and aluminum sulfate. The maximum content's of binding materials is 100 kg per total 250 kg, including 10% of cement. There are 3 tables.

Card 2/2

MIROPOL'SKIY, A., inzh.

Using the "UKM" boiler for grain dryers. Sel'.stroj. 9  
no.1:21 Ja-F '59. (MIRA 13:2)  
(Grain--Drying) (Boilers)

MIROPOL'SKIY, A.I., inzh.

The UKM continuously operating steam coil boiler. Suggested  
by A.I.Miropol'skii. Rats.i izobr.predl. v stroi. no.10:  
36-41 '59. (MIRA 12:11)  
(Boilers)

MIROPOL'SKIY, A.S., inzh.

Utilization of petroleum sludge as an additive which burns out  
during the firing of diatomic articles. Stroi. mat. 7 no.3:28-29  
Mr '61. (MIRA 14:4)  
(Insulating materials) (Petroleum products)

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RECORDED AND INDEXED  
FEDERAL BUREAU OF INVESTIGATION  
U.S. DEPARTMENT OF JUSTICE  
WICHITA, KANSAS

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FEDERAL BUREAU OF INVESTIGATION  
U.S. DEPARTMENT OF JUSTICE  
WICHITA, KANSAS

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CIA-RDP86-00513R001134

MIROPOL'SKIY, E.L., kand. tekhn. nauk; SHITSMAN, M.Ye., kand. tekhn. nauk;  
SHNEYEROVA, R.I., inzh.

Effect of the heat stream and velocity on the hydraulic resistance  
of a steam and water mixture in pipes. Teploenergetika 12 no.5:67-  
70 My '65. (MIRA 18:5)

1. Energeticheskiy institut im. G.M.Krzhi zhanovskogo.

IVASYCHENKO, V.A.; DUBROVSKAYA, D.P.; Prinimali uchastiye: MIROPOL'SKIY, G.S.;  
PUTRENKO, S.F.

Use of coal absorption oil for water dephenolization. Koks i khim. no.2:  
45-51 '63. (MIRA 16:2)

1. Makeyevskiy koksokhimicheskiy zavod.  
(Water--Purification) (Absorption oils)

KOROBCHANSKIY, V.I.; DUBROVSKAYA, D.P.; MIROPOL'SKIY, G.S.

Dephenolization of waste waters by the extraction method using  
an injection-type apparatus. Koks i khim. no.12:40-43 '63.  
(MIRA 17:1)

1. Donetskiy politekhnicheskiy institut (for Korobchanskiy).
2. Makeyevskiy koksokhimicheskiy zavod (for Dubrovskaya, Miropol'skiy).

SOKOLOV, A.; TALAYEVA, M.; MITIN, P.; MIROPOL'SKIY, I.; OCHKIN, V.;  
GUL'FMAN, B.; STROMOV, V.; BORISOV, V.

Exchange of practices. Mias. Ind. USSR 33 no.4:33-40 '62.  
(MIFA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy  
promyshlennosti (for Sokolov, Talayeva, Ochkin). 2. Gomel'-  
skiy myasokombinat (for Mitin, Miropol'skiy). 3. Brestskiy  
myasotrest (for Gul'fman). 4. Kislovodskiy myasokombinat  
(for Stromov). 5. Rizhskiy zavod "Kompressor" (for Borisov).

MIROPOL'SKIY, I.; MITIN, P.

Mechanized line for the processing of tripes. Mias ind SSSR  
34 no. 6:42-43 '63. (MIRA 17:5)

1. Gomel'skiy myasokombinat.

MIROPOL'SKIY, Kh., inzh. (kovrov)

What you should know about a telescopic fork without a connecting  
rod. Za rul. 20 no.3:27 Mr '62. (MIRA 15:3)  
(Motorcycles)

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MIROPOL'SKIY, Kh., inzh.

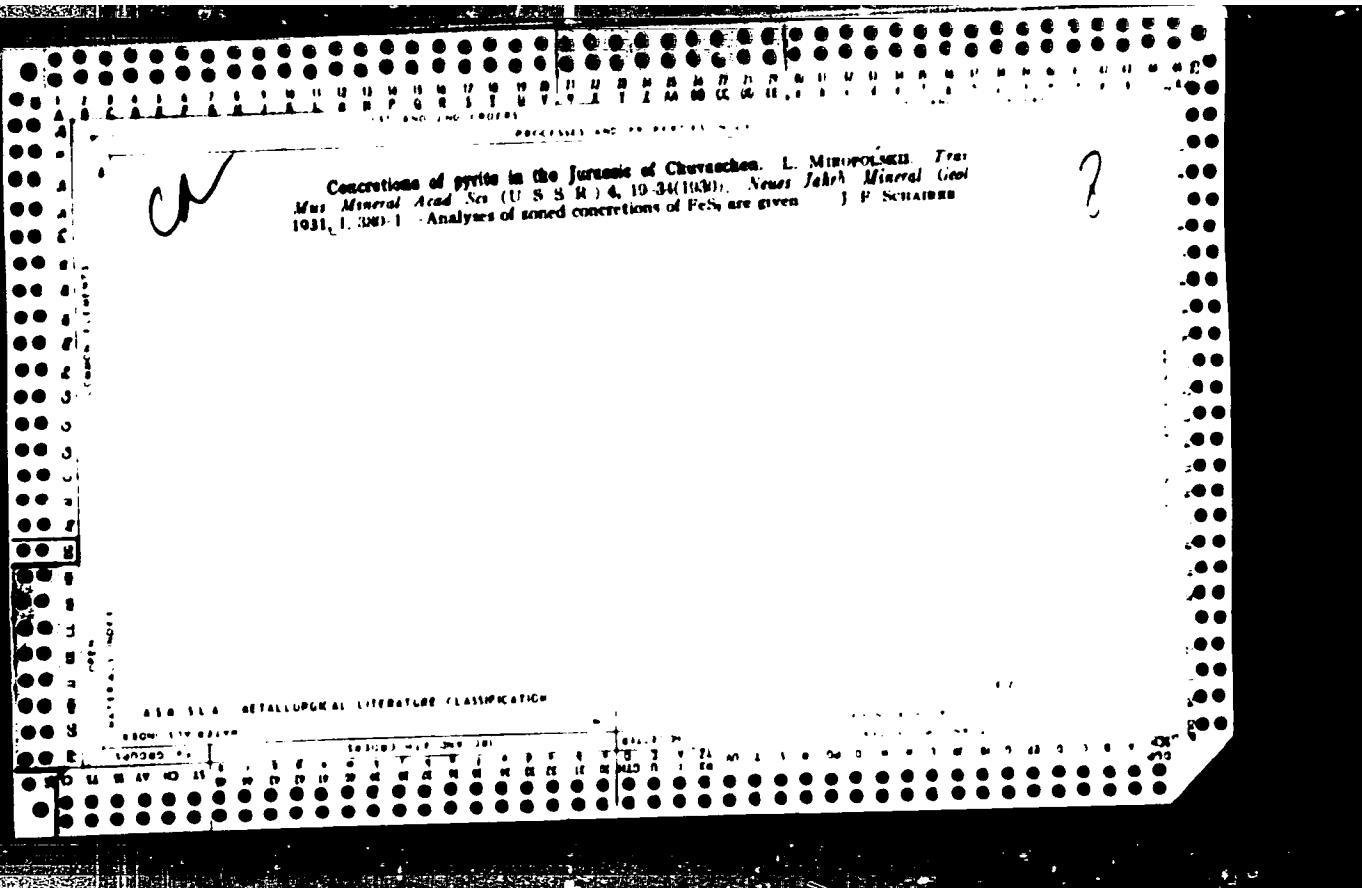
The "Kovrovets 175-V" motorcycle, Za rul. 21 no. 819  
Ag '63. (MIRA 16:11)

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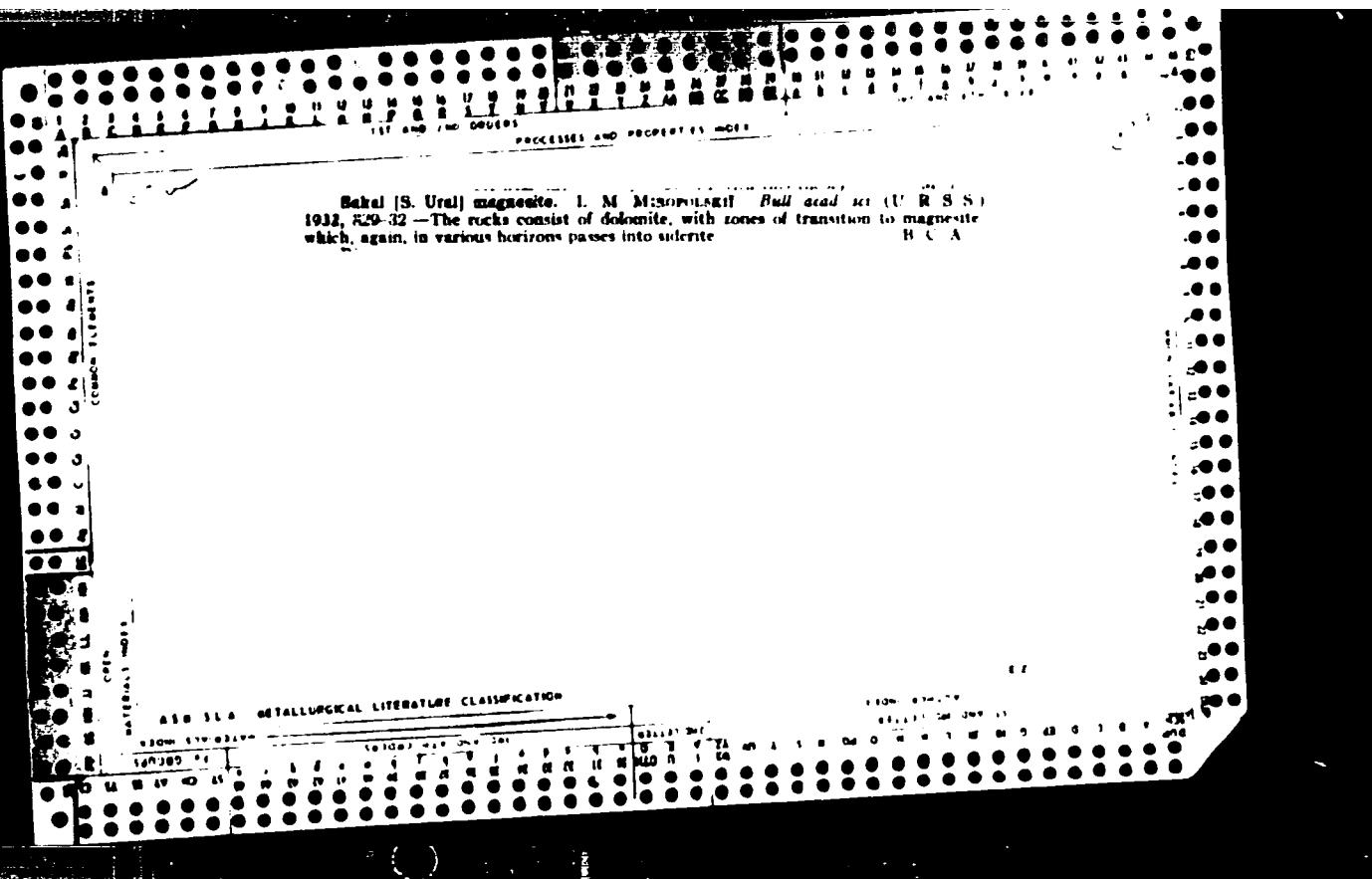
CIA-RDP86-00513R001134



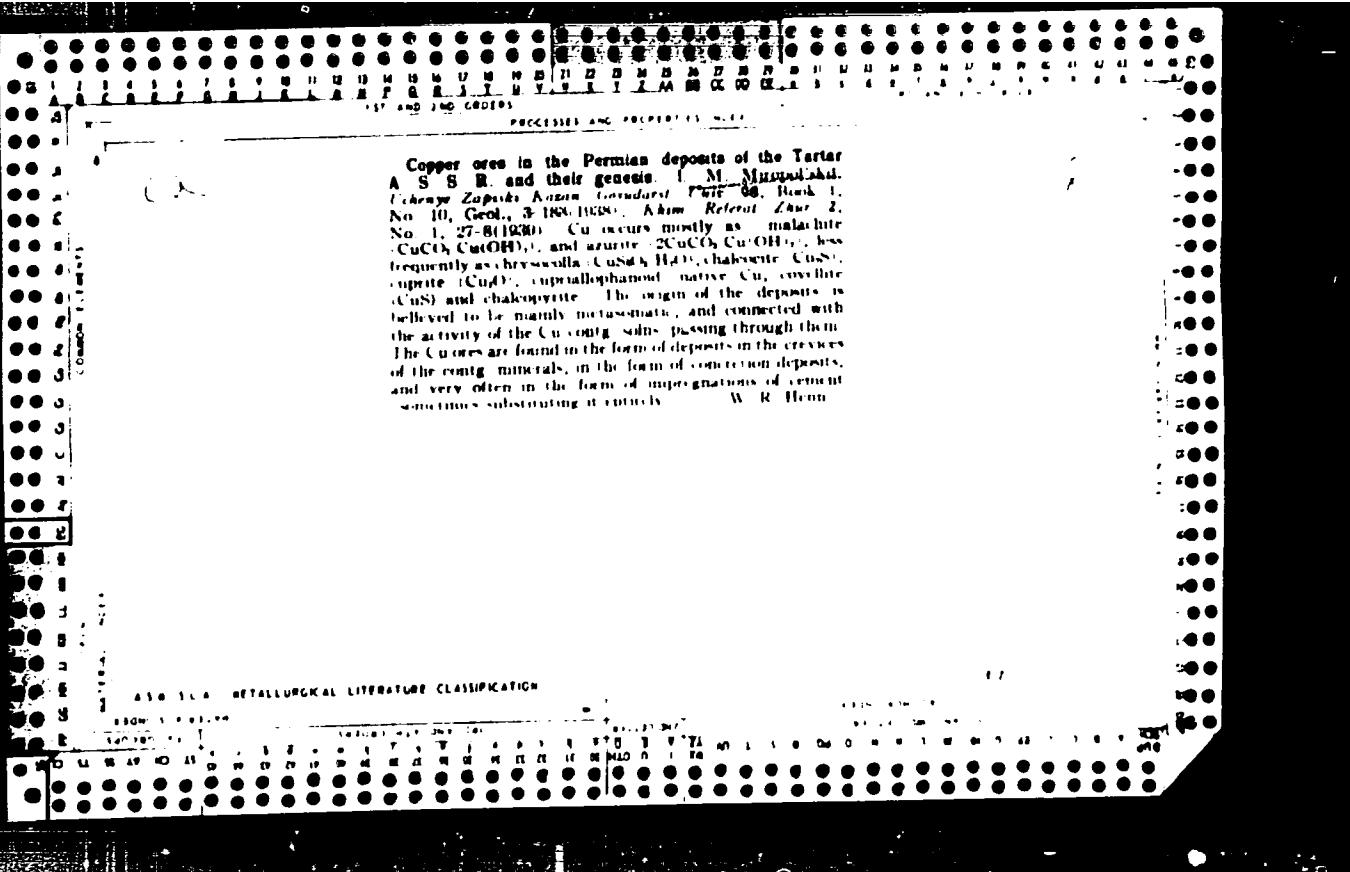
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CIA-RDP86-00513R001134

Iron ore deposits in the Ural L. M. Mironovskii  
Bull. Acad. Sci. U. R. S. S. Classe sci. math. nat. 1932.  
A detailed discussion of the deposits, giving  
their geological origin and chem. compn.



Siderophyllite and pustomosite as primary ferrous  
minerals at Bokal, southern Urals. I. M. Miroshnikov  
(Compt rend acad sci (U R S S) 1933A, 104 S. Analys  
es of the two minerals are discussed. I. Jacobson)



*CP*

Properties and properties of  
Occurrence of vanadium in the caustoborites of Tar  
tara. L. M. Mungarduk. *Russ. J. Earth Sci.*, No. 2,  
Ser. 2, 1930, No. 3, 1931 (in English, 1931). The  
caustoborites occurring at various points in the Tertiary  
A. S. R. show a relatively low V content in the dolomite  
mudstone proper and in the ash, respectively, as follows: sand of  
Tertiary age 0.016-0.053, 0.017-0.029; sand of Paleogene  
0.003-0.70, 0.013-0.129; dolomite 0.028-  
0.062, 0.003-0.121; lignite shales 0.003-0.046, 0.003-0.070. Petro. with a V content ranging  
from zero up to 0.027 in the peat and 0.101% in the shale  
deserves further study. The presence of V in the mud  
carbonate formations and in the dolomite is due to migration  
of oil from the lower horizons. D. G. G.

Fluorite in the Kungur deposits of Tataria. I. MI  
Minopol'skii, comp. Red. and tr. K. S. 25  
(200) 1-hect. in English. Fluorite, in crystals over 1  
mm., colorless to pink, occurs in drill cores from two depths  
120-1, 120-30 m., in a fine grained, dense gray dolomite  
frequently containing gypsum, and occasionally chalcedony  
and quartz, as concretions. The first layer of dolomite is  
overlain by anhydrite and underlain by gypsum; the second  
layer is similar and underlain by dolomite with large  
gypsum concretions. In both layers the fluorite forms in  
gypsum concretions. The fluorite originated by inclusion  
from concretions of the old Kungur Sea contemporaneously  
with its surrounding materials. [P. W. Pearce]

MIROPOI'SKIY, L.M.

"Microcrystalline Dolorites, Their Crust and Secondary  
Morphoses of Anhydrite and Gypsum After Dolomite  
Rhombohedrons in the Lower Permian Deposits of Tataria,"  
Dok.AN, 32, No. 2, 1941. State Univ. Kazan, 1941-.

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

MIROPOL'SKIY, L.V.

"Admixtures of Barium and Calcium in Celestite,"

Dok.An, 33, No.1, 1941, St. Univ. Kazan. clc41-.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

VIROPOL'SKIY, L.M.

"Results of Spectral Analysis of Celestite from the Upper  
Permian Deposits of Tataria," Dok.AN, 34, No.4-5, 1942.

State Univ., Kazan, cl942-.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

A. J. Starkweather

.4 16.

Distribution of zinc is found in the caustopolites of U.S.S.R. L. A. Kirovolski (Compt. rend. Acad. Sci. U.S.S.R., 1951, 1, 1-17) found Cu, Zn, Al, Fe, Mn, Cr, Ni, V, Ti, P, S, etc. present in the ash of any kind of caustopolites (coal, peat, oil, asphaltite, etc.) but the amounts in these substance in the Tataria district are very small. Coals appear to contain more than other substances of this type.

Mr. U. .

13. Be .

Development of Fertilean lower Permian re-rocks of the "red" colour  
the colour of the oil. Z. M. Skropolski (Geot. rev., No 4, 1960, p. 19-20, Fig. 10-11).--The green and red colouring of the intercalations in the  
alluvium, which occurs in the concretionary zones (Fig. 10, 11, 12, 13, 14) is attributed to oxidized hydrotalcite minerals.

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

Segregation of secondary quartz in the lower Permian deposits of Tatara. L. M. Mirovskii (*compt. rend. Acad. Sci. U.R.S.S.* 1942, 38, 62-68). Examination of these deposits shows the widespread presence of  $\text{SiO}_2$  as individual grains or crystals, intergrowths, and aggregates and in cavities in other rocks. The mechanism by which this concn. of Si as  $\text{SiO}_2$  has occurred is discussed. J. W. S.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001134

Spectrum analysis data on gypsum from Permian de  
posits of Tartaria L. M. Matygal'skii and S. A. Borovik  
(comp. read. addit. in U. R. S. S. R. 30, 23 October 1963 (in  
English), cf. C. A. 57, 1340). Qual. spectrographs  
studies were carried out on 17 gypsum specimens. Three  
of these specimens were primary gypsum, 10 were second-  
ary gypsum formed from the hydration of anhydrite, and  
4 were secondary gypsum formed by crystal from solution  
cavities. These studies show that the specimens examined  
have a rather simple chem. compn and that there are no  
striking differences in the compn of samples taken from  
different stratigraphic horizons. Besides Ca, there are  
present Mg, Sr, Ti and Fe; in some cases Al, Mn and Si  
Li, Be, B, Cu, V, Zr and Br occur only as traces. From  
the chem. compn, it appears that the secondary gypsum  
that seems to have been esp. from infiltrable soils in a  
spontaneous way has a simpler compn. V. S. de M.

SPECTRUM ANALYSIS DATA

*Cu*

Spectrum analysis data on Ca-Po-Cu-bearing minerals and native S from Tatarstan. L. M. Mironovskii and N. A. Borovik. *Geofiz. i mineralog. issled.* No. 30, 1968 (in Russian). An arc spectrograph was used to analyze 17 mineral specimens (calcite 6, pyrite 4, chalcocite 2 and one specimen each of ochre, vivianite, malachite, azurite, red-brick ore and S) from the Autonomous Tartar Soviet Socialist Republic. Some 24 elements were found present in one or more specimens, namely Be, B, Na, Mg, Al, Si, Ca, Ti, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Sr, Zr, Mo, Ag, In, Ba, Pb, I. Elements not encountered, though looked for, were Li, K, Sr, V, Ge, As, Y, Cd, Sn, Sb, Te, La, Ce, Pr, Nd, Hf, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Cu, W, Os, Ir, Pt, U. Tabulations of the results are presented. The elements found present might be grouped into 4 classes, (1) those nearly always present, viz., Mg, Si, Ca, Mn, Fe, (2) frequently occurring elements, viz., Ti, Cu, Al, Na, Pb, Sr, U, (3) sporadically observed elements, viz., others listed as detected. The minerals tested were grouped as follows, with regard to association of elements contained therein: (1) S, a mineral of simple compn., (2) calcite, pyrite and ferruginous Cu-bearing specimens as minerals of more complicated compn. and containing similar assoc. of elements, (3) other Cu-contg. minerals and vivianite as minerals of still more complicated compn., displaying a somewhat peculiar assoc. of accessory elements. J. W. Perry

G.

A-1

Red deposits of the "Kazan" type in the Permian deposits of the Middle Volga and West-Kama regions and their extent. I. M. Mirovskii (Compt. rend. Acad. Sci. U.R.S.S., 1943, 43, 336-339)

The Ufa, Nelecheyev and Tatar deposits described are a complex of alternating clastic and carbonate rocks, agreeing in extensive development of the clastic series, prevailing red-brown coloration, frequent alternation along the vertical profile, frequent punching-out and replacement of rocks, similarity in mineral composition, and presence of secondary carbonate and hydrate segregations. The variegation has been caused by leaching out of carbonates and deposition of salt in the residual structure. The transformation has occurred in layers and patches causing colour changes corresponding to varying degrees of hydration of Fe and Mn oxides. L. J.)

Results of spectrum analysis of anhydrite from the  
Permian deposits of Tetary L. M. Muropal'ski and N. A.  
Borovik. Comp. read. and in U. R. S. N. 41, 302-3  
(1943) in English; cf. C. A. 38, 8167. Qual. analysis  
of b samples, by arc spectrometry, showed that Mg, Al,  
Si, Ca and Ti were always present. Four samples con-  
tained Mn, while Cu and Zn were found only in the an-  
hydrite from the Upper Permian deposits. The intensity  
of the lines suggests different quantities of Ti and Mn in  
various samples. Fluctuations in quantities of other ele-  
ments appear slight. Most of the accessory elements  
probably enter into the anhydrite lattice as nonmorphic  
admixts.

J. W. Perry

Spectrum analysis of siliceous minerals from the Permian deposits of Tataria. I. M. Miroshnichenko and S. A. Borovik (Compt. rend. Acad. Sci. U.R.S.S. 1914, **60**, 334-337). Fifteen Si mineral specimens (quartz, chaledony, opal, flint, palivorskite) and neutroite asbestos were subjected to qual. spectrum analysis. Of the 33 elements sought, only 20, in addition to Si, were found. Of these 20 elements, Sr was the most abundant. Of the remaining elements, Ca, Na, Mg, Cu, Fe, Al, Cu, H, Ti, and Mn occurred frequently and Sr, Na, Cr, Ni, Ba, K, Ga, Pb, U, Co, Zr, and Ag occurred occasionally. The majority of the elements were present in the lattice as isomorphic admixtures; others were due to micro-inclusions.

MIROPOL'SKIY, L. F. Mbr., Kazan State Univ. im. V. I. Lenin, -1941-50 Kazan  
Affil., Acad. Sci. Mbr., Gor'kiy Geol Admin., -1947-48- Mbr , Geology Inst.,  
"Lower Permian Deposits in Tartary," Dok. AN, 5<sup>o</sup>, No. 3, 1947; "Geochemical  
Particulars of Elementary Condition of Lower Artinsk Deposits in Tartary," ibid.,  
No. 4, 1947; "Cycles in the Sedimentary Accumulation of Matter of the Upper Kazan  
Deposits in Tartary," ibid., No. 5, 1947; "Lithologic Characteristics of the Ore  
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Iron-ore concentrations near Metmox Doschatoe on River Oka, Gor'kov District I. M. Mironov (kh) and G. I. Mirovskaya *Dobudy Akad Nauk SSSR* No 303-619480 - The Fe ores belong chiefly to the Lower Jurassic and consist of spherulitic, accompanied by subordinate leptitechlorite and pyrite. Only locally  $Fe^{+++}$  is present, in consequence of oxidation reactions on siderite and pyrite. The ores contain 0.3-1.7%  $MnO_2$ , 0.6-2.5%  $MgO$ , 0.6-3.2%  $CaO$ . Spectrographic exams showed the presence of Ni, Al, Si, K, Ti, Cr, Co, Na, Cu, Zn, Mn, Sr, Ba, Pb. Locally small amounts of Mn hydroxide minerals and U-containing polygorskite are observed. The thickness of the spherulitic ore varies considerably between a few decimeters and 1.5-2 m. Usually the ore is concretionary, rarely in scaly secretions with small rhombobedrons of carbonates, also in fissures and small cavities pyrite, pyrolusite, hydrogoethite, quartz, barite spherulites and polygorskite. Also brecciated aggregates of granular siderite are observed, with typical "eyeballs" inclusions of foreign material, org. or allophanoid, or country-rock fragments are observed. Heavy mineral accessories include magnetite and ilmenite, epidote, rosite, garnet, zircon, sphene, staurolite, rutile, kyanite, tourmaline, spinel, light mineral accessories include apatite, chlorite, biotite, quartz, orthoclase, microcline, plagioclase, chalcedony, muscovite, sercite. The chemistry of the Fe ores is characterized by reducing conditions due to the decompos. of org. matter. The presence of  $H_2S$  in such a reducing medium is indicated by the formation of pyrite. The low degree of oxidation in the ores, in spite of their high level of occurrence near the surface, is due to the lack of circulating drainage waters, and of gas exchange underground.

W. Fitch